

IN THE CLAIMS:

Please amend the claims as follows:

The application contains PCT Article 34 amendment deleting claim 7 and amending claims 1, 8, and 9. The PCT Article 34 amendment is incorporated herein in its entirety for all purposes. The following is the listing of claims.

LISTING OF THE CLAIMS:

Claim 1 (Original): A method for differentiating mesenchymal stem cells into steroid hormone-producing cells, comprising stimulating the mesenchymal stem cells by a transcriptional factor (SF-1).

Claim 2 (Original): A method of claim 1 comprising further stimulating the mesenchymal stem cells by cAMP.

Claim 3 (Currently amended): A method of claim 1 [[or 2]], wherein the mesenchymal stem cells are derived from bone marrow.

Claim 4 (Original): A method of claim 3, wherein the mesenchymal cells are derived from human.

Claim 5 (Currently amended): A method for producing steroid hormone-producing cells, comprising implementing the method of claim 1 ~~any one of claims 1 to 4~~ *in vitro*.

Claim 6 (Currently amended): A method for producing steroid hormone-producing cells, comprising implementing the method of claim 1 ~~any one of claims 1 to 4~~ by transplanting the mesenchymal stem cells into a mammalian reproductive organ.

Claim 7 (Cancelled)

Claim 8 (Currently amended): A method for producing steroid hormone, comprising culturing the steroid hormone-producing cells obtained by the method of claim 5 [[or 6]] and recovering steroid hormone from the culture medium.

Claim 9 (Original): The method of claim 8, wherein said steroid hormones are progestin, androgen, estrogen, glucocorticoid or mineralcorticoid.

Claim 10 (Currently amended): Non-human animals carrying the steroid-producing cells obtained by the method of claim 5 [[or 6]].